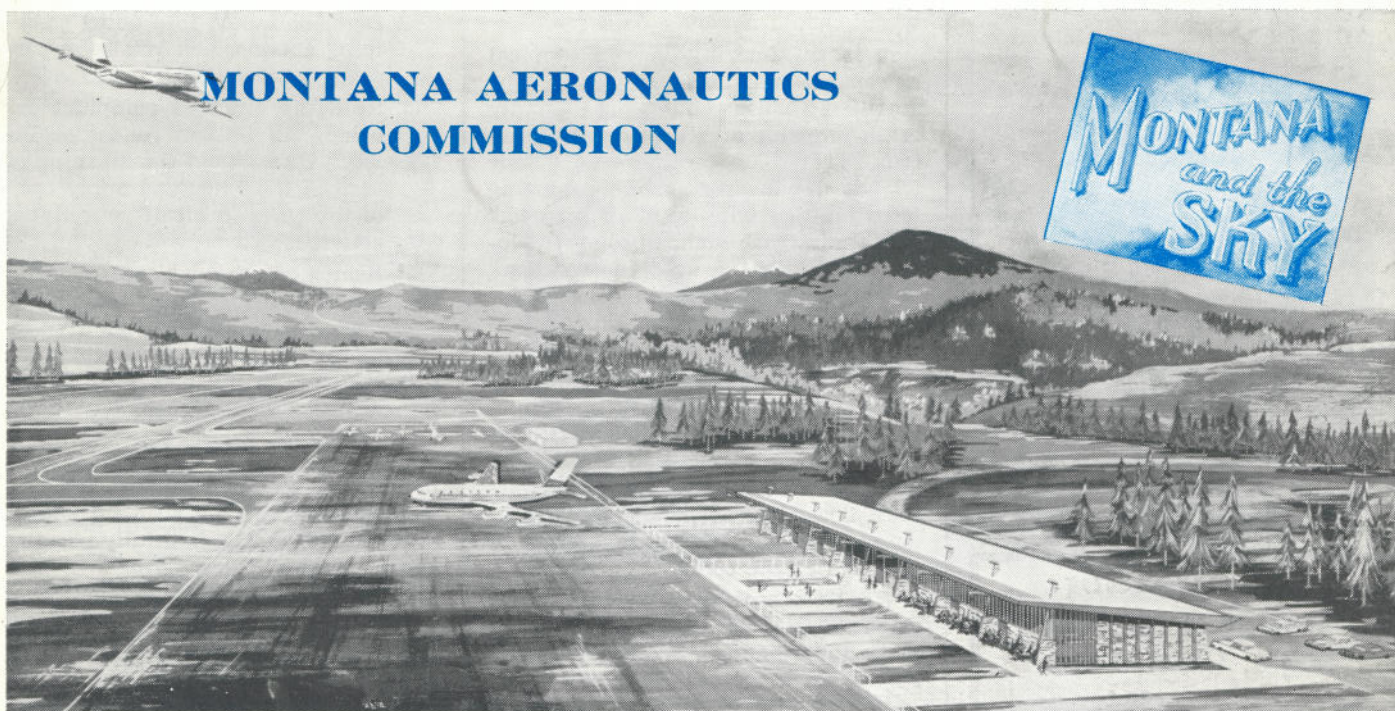




MONTANA AERONAUTICS COMMISSION



Volume 15, No. 11

December, 1964

MONTANA'S SECOND AVIATION MECHANICS SEMINAR UNDERWAY

The Second Montana Aviation Mechanics Seminar began classroom sessions on November 30. The Seminar is sponsored by the Montana Aeronautics Commission with the assistance of Aircraft and Component Manufacturers; the Federal Aviation Agency and the Department of Aeronautics and Related Trades of the Helena Senior High School.

Representatives of the Montana Aeronautics Commission and the FAA opened the session at 0800 Monday morning, followed by Lester Diehl of the Piper Aircraft Company.

The 8-day Seminar includes presentations by: Keith Chantry, Continental Motors Corp., Wichita, Kansas; Fred Costello, Mid-Continent Air-motive Corp., (Scintilla) Denver, Colorado; Alan Eurich, Electronic Consultants Service, Billings, Montana; Kenneth E. Gardner, Cessna Aircraft Company, Wichita, Kansas; Kenny Johnson, Bendix Corporation, Wichita, Kansas; Oscar S. Kimzey, Beech Aircraft Corp., Wichita, Kansas; James M. McEniry, Pacific Air-motive Corp., Seattle, Washington; Dale B. Norton, Combs Aircraft, Inc., Denver, Colorado; Anthony B. Orgain, Champion Spark Plug Company, Sun-nyvale, California; and Ralph M. Per-sun Jr., Lycoming Division—Avco

Corp., Oklahoma City, Oklahoma.

Representing the FAA will be Lee Mills—GADO—Helena and Don Wright—GADO—Billings. Jack Wilson, Safety and Education Officer for the Montana Aeronautics Commission is Course Manager.

Roster of Trainees

Alton D. Anderson Jr., Lynch Fly-ing Service, Billings; H. D. (Doug) Anderson, Flight Line, Inc., Belgrade; Harold P. Anderson, Anderson Fly-ing, Wolf Point; Jack Archibald, Glacier View Skyways, Inc., Kalispell; Gale K. Beedle, Johnson Flying Service, Missoula; Joseph C. Engel Jr., Point Aero Service, Wolf Point; Floyd Ferguson, Ridonlee, Kalispell; Michael D. Ferguson, A & P Aero Re-pair, Billings; Elmer G. Finneman, Severson Air Activities, Great Falls; Leroy L. Gillet, Gillis Aviation, Bil-lings; Robert Horinek, Hingham; John Hyko Jr., Morrison's Flying, Helena; Rudolf E. Jacobson, Modern Aire Flight Service, Culbertson; Jimmie J. Johnson, Montark, Inc., Lewistown; Mike C. Mellinger, Skyway Aircraft Repair, Great Falls; Albert W. Peter-sen, Sidney; Stanley G. Read, Mis-soula Skyflite, Missoula; W. M. Rush, Scobey; Larry Stockhill, Kalispell; Glenn Stott, Great Falls; Robert L. Tomalino, Glendive Flying, Glendive;

Ray Wicks, Johnson Flying Service, Missoula; Keith Wilhelm, Missoula Skyflite, Missoula; Louis Wolfer, Johnson Flying Service, Missoula.

TIME TO RE-REGISTER

Pilot Registration for 1965 will be due as of January 1, 1965.

All pilots residing in the State of Montana must hold a current registration with the Montana Aeronautics Commission!

State Registration is mandatory in Montana and the funds derived from registration provide the vital funds needed for Search and Rescue Operations in our state.

Registration forms are being enclosed in this issue of "Montana and the Sky" and are also available from the Montana Aeronautics Commission and the General Aviation Operators.

Please complete the form and return to the Montana Aeronautics Commission, P.O. Box 1698, Helena, Montana, with your \$1.00 registration fee as soon as possible.

Revision to the directory will be sent to all 1965 registered pilots after the first of the year.

FLY LEGAL—REGISTER!

Official Monthly Publication
of the
**MONTANA AERONAUTICS
COMMISSION**

Box 1698
Helena, Montana

Tim Babcock, Governor

Charles A. Lynch, Director

Gordon Hickman, Chairman
Walter Hope, Vice Chairman
Carl W. (Bill) Bell, Secretary
Herb Jungemann, Member
E. B. Cogswell, Member
Clarence R. Anthony, Member
Jack R. Hughes, Member



**IN MEMORIUM
PHILIP J. ACTON**
Major, U.S.A.F. Ret.
1924 1964
**TOWN AIR
TOWNSEND, MONTANA**

Mrs. Sybil Acton will continue to operate Town Air.

The Montana Aeronautics Commission wishes Mrs. Acton every success in her operation.

FAA'S OPEN LETTER

Dear Fellow Airman:

I am addressing this letter to you with the awesome knowledge that many of you will die in private airplane accidents before the year is over. The first reaction of most of you will be, "It won't happen to me." However, unless you take positive action, more than 480 of you receiving this letter will not be here a year from now because of involvement in a fatal aircraft accident. What is even more lamentable is that these pilots will take approximately 400 of their friends and members of their personal family with them. In some cases this very letter will arrive a day or two too late.

If you are shocked by this brutal introduction we will have been successful in calling your attention to an area where needless accidents are resulting in loss of lives. Each Monday morning I review the accident figures of the previous week. From a column of cold statistical data each figure emerges as a painful tragedy

which should not have occurred.

It is so shocking to read typical newspaper headlines "Doctor and four members of his immediate family crash into side of hill at night within two miles of destination." "Four friends die in crash while returning from hunting trip—weather blamed." "Fatal air crash claims prominent local man—flight caught in weather." "Pleasure flight ends in disaster for four—aircraft spun in during approach for landing."

Case after case was needlessly caused. Aircraft don't get caught in weather, they are flown into it. The aircraft doesn't crash into a mountain, it is flown into a mountain. The aircraft doesn't generally spin in on its own. A spin is usually the result of the man at the controls.

What we are trying to say is that these things don't just happen, people make them happen. We get in a hurry, we let ourselves be shamed into, or talked into irrational actions and we over-extend our abilities or we use bad judgment.

Over 80 percent of the fatal accidents in general aviation are the direct result of operational actions. Of the 473 fatal accidents which occurred during the most recent one-year period faulty flying technique was a causal factor cited in approximately 68 percent and careless or reckless operation was involved in approximately 31 percent. Personal flying accounted for 222 of the 473 fatal accidents. Business flying by the individual accounted for 60 of the fatal accidents and instructional flying was involved in 92 fatal accidents.

We can legislate, educate, or equip against certain factors which cause accidents, but we can't legislate against bad judgment. We too make mistakes but we try not to repeat them.

I want to make a personal appeal to you to help prevent you, your friends, and your family from becoming statistics. What can you do to help? You, the pilot, have more control over this problem than any other individual or organization.

1. Recognize and operate within your personal limitations.
2. Recognize and operate within the limitations of your equipment.
3. Know your equipment well and how to fly it.
4. Don't take unnecessary risks because of pressing time; if you do, you may run out of all the time remaining in your life.

5. Don't be talked into doing something about which you have personal reservations.
6. Read the attached pamphlet entitled, "12 Golden Rules for Pilots." Understand the meaning of each of the rules and apply each of the rules in all of your flying activities.
7. Remember that alcohol and flying is a deadly combination.
8. And above all—use good judgment in your flying techniques.
9. Pass on to me and your fellow airmen ideas for greater flight safety.

Hopefully, a year from now each of you can be congratulated for having reduced the fatal accident rate.

If each of us will faithfully practice the 12 Golden Rules, flying will give us the benefits and enjoyment that will enrich our lives for many years to come.

Sincerely,
(sgd) N. E. Halaby
Administrator.

HAVRE HANGAR MPA

Dear Fellow Pilots:

We are addressing this letter to you with the awesome knowledge that all of you have received, from the Federal Aviation Agency Administrator, N. E. Halaby, a personal letter extolling the virtues of the twelve Golden Rules of Flight Safety of pilots.

This approach to the review of sound guidelines for safe operating practices is commendable in its scope but very difficult for Montana pilots to adhere to in practice; when in the interest of public safety, the Federal Aviation Agency sees fit to remove or de-commission the few navigational aids left to us in a state of the proportions, vast stretches, and mountainous terrain that we traverse in our daily use of our aircraft.

In suggestion number nine of the Administrator's letter, that we pass on to him ideas for greater flight safety—we urge each of you to personally write a letter to Mr. Halaby now!—urging retention of all existing facilities now in Montana plus the installation of additional facilities in the vast high-line area to bridge the gap between Glasgow and Cut Bank—mainly the Havre location—and wherever needed to the greatest advantage to all users in our mountainous areas.

Signed: Havre Hangar
Montana Pilots' Assoc.

INSTRUCTORS BULLETIN ISSUED BY JEPPESEN

The new Instructors' Bulletin is issued several times each year by Jeppesen and Company, fills a definite void in the area of ground and flight instruction. Already welcomed by thousands of instructors as a useful tool, these Instructors Bulletins accomplish a number of purposes each issue. A continuing series of professionally done articles on Pilot Training written by Donald W. Layman, is indeed of value to the instructors. Mr. Layman has authored many publications in the aviation field, and has served as Manager of United Airlines' Technical Training Department, as well as serving as aviation training consultant to airlines and corporations.

A postcard to Jeppesen & Co's. Education Department at 8025 East 40th Avenue, Denver, Colorado 80207 enrolls you as a free subscriber to the Instructors' Bulletin. It's a worthwhile contribution to aviation progress, and fills a definite need in the area of pilot training.

JOYCE GERTZEN AND VICTOR KIESLING JR.— WINNERS OF FLIGHT SEMINAR FOR YOUTH

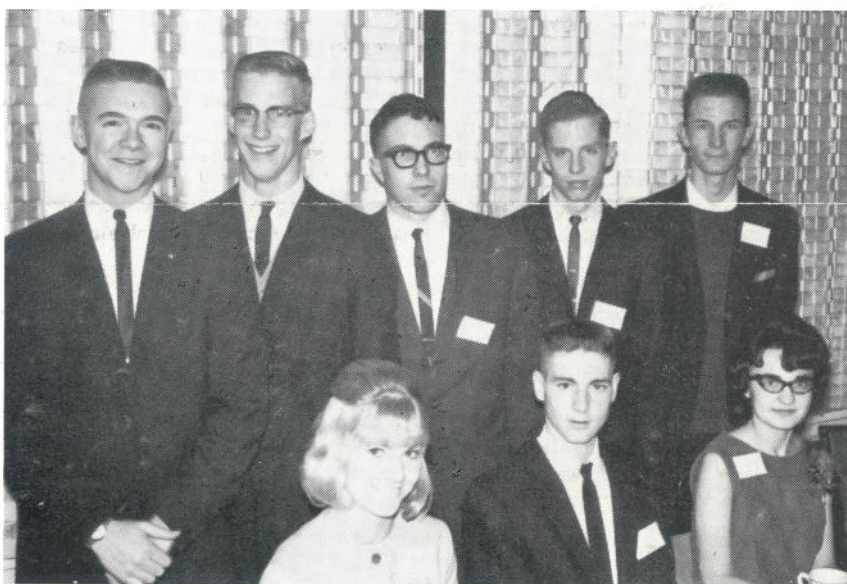
Joyce Gertzen of Cut Bank and Victor J. Kiesling Jr., of Helena were named Saturday, November 21, as Montana's delegates to the 1964 Flight Seminar for Youth. Gary Pickens of Florence, Montana was named first alternate and Joie Beauregard of Fort Benton, second alternate. They were chosen from eight semi-finalists in the statewide competition, during which they were tested and interviewed on their understanding of aviation in the modern world.

Announcement of the winners was made at a dinner honoring the entire group Saturday night, November 21. The other semi-finalists honored were: Mike Cook of Deer Lodge; Steven Johnson, Helena; Robert Thompson, Corvallis; and Claren Neal, Lodge Grass. Each contestant is a junior or senior class officer or student council president.

The two delegates will attend a special aviation program for youth at the Federal Aviation Agency Aeronautical Center in Oklahoma City December 16-17, held in conjunction with national celebrations of Wright Brothers' Day.



Lt. to Rt: Gary Pickens, Florence, First Alternate; Joie Beauregard, Fort Benton, Second Alternate; Joyce Gertzen, Cut Bank, Delegate and Victor Kiesling Jr., Helena, Delegate.



Lt. to Rt. Seated: Joie Beauregard, Fort Benton, Second Alternate; Gary Pickens, Florence, First Alternate; Joyce Gertzen, Cut Bank, Delegate. (Standing) Steven Johnson, Helena; Victor Kiesling, Jr., Helena Delegate; Mike Cook, Deer Lodge; Robert Thompson, Corvallis, and Claren Neal, Lodge Grass.

A selection board interviewed the eight semi-finalists Saturday in Helena. Board members were Maynard Olson, High School Supervisor, State Department of Public Instruction; Rev. Gerald Lynum, Carroll College faculty member; and Frank Wiley, former director of Montana Aeronautics Commission.

The sponsors for Flight Seminar for Youth in Montana are Montana

Aeronautics Commission and the State Department of Public Instruction. The seminar is part of Montana's aviation education program in schools and colleges to promote greater understanding of the importance of aviation at local, state, national and international levels. Mrs. Mary Jo Janey is the State Supervisor of Aviation Education. Jack Wilson, S & E Officer—Montana Aeronautics Commission was Coordinator on the Seminar.

MONTANA ARGUES BEFORE THE CIVIL AERONAUTICS BOARD FOR CONTINUED AIR SERVICE

By Charles A. Smith

Gordon R. Hickman, Chairman of the Montana Aeronautics Commission, Henry Loble and Charles A. Smith, attorneys for the Montana Aeronautics Commission, journeyed to Washington, D.C., to present oral argument before the Civil Aeronautics Board on behalf of the Montana Aeronautics Commission in the Frontier-North Central Route Transfer "Use It Or Lose It" investigation.

The purpose of the CAB investigation was to determine whether the Montana cities, presently served by Frontier Airlines, have been making sufficient use of the air service to justify continued airline subsidy. Most airlines operating in sparsely populated regions, such as Montana, must rely on Federal subsidy in order to provide their air service. Therefore, the elimination of subsidy renders continued air service to the sparsely populated areas economically impossible. In order to determine whether a particular city or route is justified in receiving continued service by a local service or "feeder" airline, the CAB has set up certain guidelines. Some of these are the number of passenger boardings, adequacy of other commercial transportation, and the degrees of isolation of the particular city or route in question. The Montana cities whose air service by Frontier is in jeopardy in the above proceeding are: Great Falls, Havre, Glasgow, Sidney, Wolf Point, Glendive, Miles City and Lewistown.

The Montana Aeronautics Commission and the cities involved filed their briefs to the CAB in this proceeding on or before November 2. On November 18, the CAB heard the oral arguments. The Montana Aeronautics Commission and the Montana cities argued for continued air service at all the Montana points as it presently exists. The arguments were well presented and it is felt that they were received with considerable favor by the Civil Aeronautics Board. In addition, the CAB was very impressed by the large number of Montana representatives who were present at the hearing in Washington, D.C. The

Board felt that this reflected a very genuine interest by the Montana cities in receiving continued air service. In addition to the representatives of the Montana Aeronautics Commission, all of the Montana cities involved with the exception of Havre, sent at least one representative to Washington, D.C. to participate in the oral argument. Frontier Airlines also argued for and favored continued airline service at all Montana points presently being served.

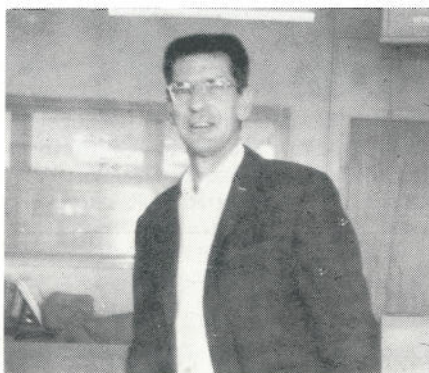
It is expected that the Board's decision in this matter will be forthcoming in the near future. In view of the increase in passenger boardings at all the Montana cities during the past year, the extreme isolation of most of the cities involved, and the very favorable impression that the Montana parties seemingly made on the Board, we have all returned optimistic that the Board's decision will be one of continued service to all Montana points as it presently exists.

(Author's note: This news item is presented in lieu of my regular article "A Case In Point.")

FAA DESIGNATES NEW EXAMINERS

H. Bin Rowland, Owner/Manager of Montana Airmotive Inc., Billings, Montana was recently made a "Designated Mechanics Examiner" by Fritz Lueneberg, Supervising Inspector of the FAA's GADO in Billings.

Bin attended college in California, the Curtis Wright Tech Institute in California, and the Air Transport Command Training School in Middletown, Pennsylvania.



H. Bin Rowland

Bin served as a civilian employee of the Air Transport Command from 1941 through 1944. He was employed by the Alaska Coastal Airlines from 1945 to 1949. On his return to Billings

in 1949 he joined the staff at Lynch Flying Service and remained with that operation until 1957 at which time he started Montana Airmotive. Bin holds an A & E certificate and is an Authorized Inspector in addition to his latest designation of DME.

Bin states that his hobbies are, the flying business and boating. The Rowlands have four children and reside at 2415 Ivy Lane, Billings.

Richard "Dick" Hickox, Manager and Chief Pilot for Severson Air Activities, Inc. Great Falls, was recently designated a Pilot and Instrument Examiner by the FAA.



Richard "Dick" Hickox

Dick attended schools in Deer Lodge and Drummond and college at MSU, Missoula and served in the U.S. Navy from 1941 to 1945 as Chief Radio Man. He received his private pilot license from John Fox, Fox Flying in Butte, and during his flying career in Montana, has flown for Butte Aero Sales, Johnson Flying Service in Missoula, previous to holding his present position at Severson's. Dick currently holds a Commercial License (ASEL, ASES, AMEL, and Instrument); and is a certified Flight Instructor.

Dick, his wife Patty and three daughters reside at 421 6th Avenue North, Great Falls.

Robert "Bob" Lohof, Pilot, Instructor and Examiner, at Severson's Air Activities, Great Falls. Bob has been a pilot examiner, (Private, Commercial and Multi-engine) for some time and has recently been designated Pilot Examiner, Sea Plane.

In addition Bob is owner and op-



Robert "Bob" Lohof

erator of Cut Bank Flying Service in Cut Bank. The Lohofs have three children and reside at 3713-3rd Avenue North in Great Falls.



CALENDAR

November 30-December 7, Helena, Montana. The Second Aviation Mechanics Refresher Seminar.

December 7-December 8, Helena, Montana. Montana Aeronautics Commission monthly meeting.

December 15-December 17—Oklahoma. Flight Seminar for Youth—FAA Oklahoma City Tour—(see article).

JANUARY 1, 1965—PILOT REGISTRATION BECOMES DUE.

May 8, 1965, Spokane, Washington, Dedication Ceremony—new air terminal Spokane International Airport 2:00 P.M. Saturday. (Watch for further details.)

May 26, 27 and 28, 1965—Nassau Bahamas—15th All Women's International Air Race. Sponsored by The Bahamas Ministry of Tourism with the Florida Women Pilots Association directing all technical phases of its organization and conduct. \$2,500 purse. For additional information contact Florida Women Pilots Association Inc. Mrs. Vera Bratz, Race Chairman, 1840 S. W. 85th. Avenue, Miami, Florida. (Watch for further details.)

June 12, 1965, West Yellowstone, Montana. Dedication Yellowstone Airport scheduled Western Airlines inaugural flight. Watch for further details.)

FLYING MCDONALD PASS WEATHER

R. A. Dightman
Meteorologist in Charge
Weather Bureau Airport Station
Helena, Montana

When Capt. Alexander McDonald built his toll road about a century ago west of Helena, over the pass which now bears his name, he probably could not have imagined that his pass would some day be near one of the primary air routes east-west through the Northern Rockies. Exactly 13 nautical miles west of the Helena Airport is the summit where McDonald operated his toll road until 1885, and this summit (whenever there are storm systems affecting Western Montana) more often than not is the place where weather sets up its most troublesome barrier between Helena and Missoula. Mountain-topping clouds, snow, rain, icing, turbulence, and just plain wind can occur either alone or in any combination over the pass area, and the purpose of this summary is to review some of the problems, and their solutions, in air travel during these weather conditions.

We should note first that this is rough mountain country, and all the usual problems of mountain flying may occur. McDonald Pass itself may not even be the best route in marginal condition—at an elevation of 6,325 ft. (about 2,400 ft. above Helena Airport) it is about 500 ft. higher than Mullan Pass (about 7 nautical miles north of McDonald). There are times, then when Mullan Pass is the more favorable weather route—this has been the experience of most pilots flying west out of Helena. A pilot can choose between the two routes after taking off from Helena westbound; but eastbound, because the Dog Creek Valley leading to Mullan is hidden by a mountain ridge, he can't choose between the two routes until he is a mile or two east of Elliston (unless he is flying high enough so a choice isn't needed).

Between Elliston and Avon the valley (Little Blackfoot) is fairly wide and quite straight, but from about 6 miles east of Garrison to Avon the valley narrows between mountain ridges which often can have cloud cover in storm conditions; and the valley (westbound) is traveled from NNE to SSW—almost 90° off the heading to Missoula. For VFR guid-

ance over McDonald, there is the highway (U.S. 12); over Mullan, there is the railroad (there is a mile-long tunnel at the summit). Highway and railroad join just east of Elliston and are practically parallel from Elliston to Missoula. In 100 per cent VFR weather, of course, the direct heading between Missoula and Helena is via Mullan Pass (named for Capt. John Mullan, whose 1860 road went that way).

Much of the Continental Divide on both sides of Mullan and McDonald Passes runs near 7,000 ft. (with higher peaks, of course), so any time Helena reports a well-defined ceiling near 3,000 ft., one should become wary of cloud-enshrouded passes (3,900 + 3,000—6,900 ft. ceiling MSL). In fact, **both** passes **can** be in the clouds when even higher ceilings are observed at Helena; conversely, when Helena ceilings are below about 2,500 ft., one can be almost certain that **both** Mullan and McDonald are very doubtful VFR targets. While McDonald Pass can't be seen from the Helena Airport weather station, Mullan Pass can be. When "Clds Tpg Mtns W" appears as a remark on the Helena weather report, both passes are doubtful.

While these cloud conditions can occur during storm periods any month of the year, they are encountered most frequently during winter and spring months, and least often in late summer and early fall. Even when ceilings are higher than 3,500 ft or so at Helena one must watch for reduced visibility over the two passes in rain or snow, or even for wisps of cloud "dragging" along ridges. In near or slightly below freezing temperatures rain or cloud "wisps" can produce icing.

The cold season (Oct.-Mar.) Clark Fork River fog phenomenon seldom extends east as far as Garrison, but is included as a McDonald Pass weather problem because it occurs on the Helena-Missoula route. Tops of this fog or stratus often are below 6,000 ft. MSL, but the fog layer often blankets valley bottoms from Drummond to west of Missoula. Mountain ridges usually (but not always) are in the clear on all sides of this valley fog, so VFR "on top" of the fog often is feasible.

A wind phenomenon over or east of these two passes, often encountered during the season October-March, arises from the collecting of still, cool

air over the Helena Airport (mostly on clear nights), while relatively warm westerly winds over the passes (sometimes quite strong) ride on top of the cool valley air layers. This westerly wind will be found at almost any elevation from a few hundred to nearly 3,000 ft. off the ground, and the "shear" zone can be a bit turbulent. The mechanical turbulence usually found in strong winds over mountain barriers is no stranger to both slopes of the Continental Divide in this area.

Captains McDonald and Mullan no doubt had their problems with their roads, (mud, slides, snow etc.), and probably never dreamed that their passes would be below men traveling, airborne, at a hundred or more times the speed of transportation of their day. Both modes had problems, though, and this brief summary is an attempt to make a little more understandable the weather problems over these two passes.

FAA UPDATES ATC RADIO FREQUENCY ASSIGNMENT PLAN

An updated air traffic control radio frequency assignment plan, designed to keep pace with the growing volume and complexity of aviation, has been announced by the Federal Aviation Agency.

The FAA plan makes use of 50 kcs. spacing above 127 mcs. and also, in some high-density traffic areas, below 127 mcs.

To the extent available, and consistent with operational requirements in congested areas, 100 kc. channels will be assigned to low altitude enroute and terminal functions.

Though Flight Service Stations (FSS) will continue to provide service on 100 kc. channels, FAA ground equipment will have complete 50 kcs. capability by January 1, 1966.

Until a few years ago, relatively few VHF radio channels below 127 mcs. were needed to serve aviation. These channels were spaced 100 kcs. apart.

But with the growth of aviation in recent years, additional radio frequencies are needed to meet current and future demands. In addition, advances in communications technology have made it possible to reduce VHF frequency spacing to 50 kcs., thereby increasing the number of available channels.

The ATC frequency assignment plan up to January 1, 1966, is contained in the following list. It reflects all changes made in recent years:

a. **High Altitude Enroute.** Above 127.0 mcs. with 50 kcs. spacing, using discrete frequencies only.

b. **Low Altitude Enroute.**

(1) **ARTCC Radar Sector Discretes.** On 100 kcs. channels between 118-127 mcs. with 100 kcs. adjacent channel protection wherever possible. As requirements dictate, 50 kcs. protection of the 100 kcs. assignments will be implemented on a case-by-case basis.

(2) **ARTCC Non-Radar Sector Center Area Discretes (CAD).** On any odd tenth decimal frequency between 118-127 mcs. with 100 kcs. adjacent-channel protection.

(3) **ARTCC Non-Radar Sector Discretes.** Above 127.0 mcs. with 50 kcs. spacing.

c. **Flight Service Stations.** 100 kcs. protection provided to 122.1/122.2/VOR Double Channel Simplex (DCS) and 126.7 mcs.; 50 kcs. protection provided to 135.9 mcs.

d. **Local/Approach/Departure Control.** On 100 kcs. channels between 118-127 mcs. with 100 kcs. adjacent-channel protection and with the first assignment priority on the odd decimal frequencies and the second assignment priority on the even decimal frequencies. 50 kcs. protection of the 100 kcs. assignments will be implemented as requirements dictate. Second channels of approach/departure control may be on 50 kcs. channels as required.

e. **VFR Radar Advisory.** Same as local control with second channels on 50 kcs. spacing.

f. **Ground Control.** On 100 kcs. channels between 121.6-121.95 mcs. Second channels can be on any 50 kcs. channel in the airport utility band.

g. **Clearance delivery.** On any 50 kcs. channel in the 118-136 mcs. band. Limited equipment users will receive clearance delivery on ground control channels.

The following plan will be effective after January 1, 1966:

a. The emergency frequency 121.5 mcs. will continue to have 100 kcs. protection. This is in consonance with international agreements and national radio regulations.

b. Flight Service Stations will have 100 kcs. protection on 122.1/122.2/VOR DCS and 50 kcs. protection on 126.7 and 135.9 mcs.

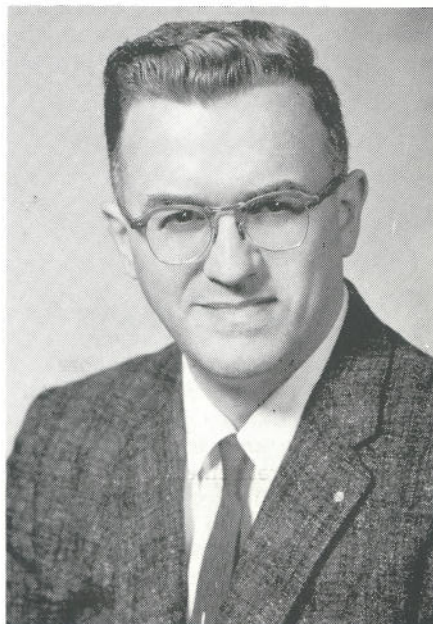
c. ARTCC enroute assignments (no

CAD frequencies) will be on any 50 kcs. or 100 kcs. channel in the 118-136 mcs. band.

d. Terminal assignments will be on any 50 kcs. or 100 kcs. channel in the 118-136 mcs. band.

LIVINGSTON FLIGHT SERVICE STATION CHIEF TRANSFERS

Mr. Anthony J. Silva, Chief of the Livingston Flight Service Station has been reassigned as Chief of the La-Crosse, Wisconsin station.



Anthony J. Silva

Tony attended grade and high schools in Calumet, Michigan. Following graduation he served 18 months in the Civilian Conservation Corps as Radio Operator and then joined the CAA in 1941. Tony served in the U.S. Army from '43-'46, where he received further radio training and served in Italy with the 10th Mountain Division as radio repairman and muleskinner.

Tony graduated from the Peninsular School of Aeronautics at St. Ignace, Michigan, with a private pilot license and also hold weather briefer and weather observers certificates from the U.S. Weather Bureau.

Tony rejoined the CAA in 1946 and was stationed in Detroit, St. Ignace and Sault Ste. Marie in Michigan. After 17 years at the Sault Ste. Marie Station, he was assigned to Livingston, Montana in February of 1964.

Tony is an active member of sev-

eral singing groups and the Knights of Columbus and has a number of hobbies including hunting, fishing, furniture refinishing and rock collecting. The Silvas have four daughters, ranging in age from 12 years to 15 months.

In a recent letter from Tony, he stated: "My family and I are sorry to leave Montana. We have made fine friends and found the people the friendliest, the climate the best, and the country everything we had hoped for. We intend to return, permanently if possible, but at least for visits."

The Montana Aeronautics Commission sends the Silvas our very best wishes and hope that they are able to return to Montana, often and soon!

HAVE YOU READ?

FLIGHT MAGAZINE'S feature story by Dr. Leslie L. Thomason, titled "General Aviation Looks at Manpower Needs"—November issue (Page 120). Dr. Thomason has written an article that is more than worthy of the reading time of every aviation minded individual. Elaborating on the fact, that today flight schools are too few; military training is on a reduced scale, and airline pilots are approaching retirement far faster than younger pilots are trained to replace them. The article is a searching analysis of the problems and the hopes of general aviation.

The industry-wide "Grow Kit Program" is also highlighted by Dr. Thomason. The Utility Airplane Council, under their Public Education Subcommittee, has effected this program to awaken the various publics to the impact of the aircraft on the social, economic, political and technical well being of everyday American living and modern day business.

A number of other aviation stimulus programs were suggested in the article which should be of interest to the reader, and very vital importance to our General Aviation Operators, certainly "food for thought."

FLYING MAGAZINE'S feature story of 'fly in to ski' in the December issue (page 28). Titled "Gone Flying to Ski Country" and written by Richard B. Weegham, managing editor. The article identifies the nation's outstanding ski slopes which are conveniently served by an airport of sufficient runway length and service facilities.

Montana's Big Mountain near

Whitefish is featured in Flying's "Top Ten." Red Lodge's Grizzly Peak, Missoula's Snow Bowl; and Bridges Bowl at Bozeman are listed in addition to Big Mountain on the page, "Pilots' Guide to Skiing."

This is an excellent article and should certainly encourage flying-ski enthusiasts to visit our slopes this winter.

RUNWAYS, TAXIWAYS, RAMPS, CONDITION REPORTING. A pamphlet published by the American Airlines Flight Departments is directed particularly to All Personnel Concerned with Aircraft Ground Operation.

This pamphlet is circulated with the hope of eliminating the number of runway, taxiway and ramp accidents and the cost of same. The pamphlet presents airport conditions that the airline pilots are most concerned with and why. This pamphlet is concise, lucid and well presented.

AIRPORT NOTES



By James H. Monger
Assistant Director, Airports

1965 AIRPORT DIRECTORY

The Engineering Department is now finalizing the new 1965 Montana Directory of Airports. Most airports in the state have changes that should be noted in the new Directory. We ask that any pilot or flight operator, or airport manager, that knows of a correction or suggestion for the new revision sheets for 1965 please notify this office so that they can be included. Each registered pilot will receive a packet of revision sheets for his Directory early in 1965. All of the pages will change but the same cover will be used. Your comments and suggestions are always welcome on new ways to improve the revisions for the Directory.

BENCHMARK

The United States Forest Service is proposing to build a local category airport at the location of the Bench-

mark Ranger Station west of Augusta adjacent to the Bob Marshall Wilderness Area. The Federal Aviation Agency has allocated \$167,000 for this project. The Forest Service estimates that the total cost will be \$315,000. The airport project is now under study by Wenzel Engineering and the airport layout plan will be submitted in December. The primary function of the Benchmark Airport will be for recreation usage and for administration and fire patrol usage by the Forest Service. The airport will have a general aviation parking apron and a separate parking apron for the Forest Service. The runway will be 6,000 feet in length. It is planned that construction will start early next summer.

ANACONDA

The Montana Aeronautics Commission approved a preliminary engineering grant to Deer Lodge County for an engineering study for the redevelopment of the Anaconda Airport. Morrison and Maierle, Consulting Engineers from Helena have been retained by the Anaconda Airport Commission to do the study. The proposed project will include paving the runway, taxiway and apron. This project will be a local, state and federal aid project. It is estimated at this time that the total cost will be approximately \$90,000 with the City of Anaconda and Deer Lodge County borrowing 47% of the funds from the Montana Aeronautics Commission and the Federal Aviation Agency granting the remaining 53%.

JORDAN

The Montana Aeronautics Commission recently approved a loan to Garfield County in the amount of \$10,000 to aid in the financing of a local, state and federal project which will consist of paving the runway, taxiway and apron at the Jordan Airport. This project is now under engineering study and construction will commence in the spring of 1965.

GENERAL AVIATION UTILITY AIRPORTS COSTS

Final costs have been computed for the new General Aviation Utility Airports at Seeley Lake, Lavina, Ryegate, Ekalaka and Richey. The average construction cost per airport is \$18,028.76. Each airport had a \$3,000 engineering cost and in most cases there was a charge for the property as well as a charge for legal advertisement and abstract research. Listed below you will find the final costs of each pro-

ject that was completed by the Montana Aeronautics Commission during the summer of 1964.

SEELEY LAKE—Sponsor—Missoula County

Repayment to MAC over ten	
year period	\$4,620.82
State Land Board costs \$	632.60
Engineering	3,000.00
Construction cost	20,988.22
Land donated by	
Missoula County	

Total Project cost \$24,620.82

LAVINA—Sponsor—Golden Valley County

Repayment to MAC over ten	
year period	\$3,117.43
Land Cost	\$ 2,130.00
Legal advertising	11.40
Engineering	3,000.00
Construction cost	11,315.90

Total Project cost \$16,457.30

RYEGATE—Sponsor—Golden Valley County

Repayment to MAC over ten	
year period	\$3,561.47
Land Cost	\$ 2,870.00
Legal Advertising	11.40
Engineering	3,000.00
Construction cost	16,354.00

Total Project cost \$22,235.40

EKALAKA—Sponsor—Carter County

Repayment to MAC over ten	
year period	\$10,000.00
Abstract cost	\$ 271.00
Legal Advertising	11.40
Engineering	3,000.00
Construction Cost	24,741.67
Land donated by	
Carter County	

Total Project Cost \$28,024.07

RICHEY—Sponsor—Dawson County

Repayment to MAC over ten	
year period	\$4,286.30
Land cost	\$ 2,989.00
Legal Advertising	22.80
Engineering	3,000.00
Construction Cost	16,744.04

Total Project Cost \$22,755.84

FOR SALE: LATE 1958 CESSNA SKY-LANE 182—196 hours on \$2,000 chrome major by Mercury Aviation, Minnesota—37 hours on factory overhaul prop—1,165 total time Full IFR equipped with 6 cyl. primer, cyl. head temperature gauge—rotating beacon—2 month old new Narco Mark IV with Omni LFR-3. New heavy duty nose gear—new tires, brake blocks and disc. Interior and exterior in perfect condition. License to May 11, 1965. PRICE: \$8,750. Will deliver for expenses. CONTACT: John Bragg, 19 Carol Lane, Livingston, Montana. Phone 222-2990.

AVIATION SAFETY DISCUSSIONS

By D. M. Gretzer

Former Chief, General Safety Div.
FAA—Alaska

"COLD WEATHER SAFETY"

CO2 Fire Extinguishers in Cold Weather

The normal pressure of CO2 at room temperature, in fire extinguisher containers, is 750 pounds per square inch. At minus 50° F, the pressure drops off to approximately 50 pounds psi. Now, hold your hats—at minus 60° F, the pressure drops down to around **five pounds psi**.

To winterize these units, nitrogen is first pumped into the bottle, and then the CO2 is added. The exact quantity is specified in the manufacturer's bulletins to the agencies which refill the bottles.

If the CO2 is not of a pure grade, it may contain traces of moisture which will cause the discharge nozzle to freeze up when used. Another cause for freezing of the nozzle is the accumulation of snow or freezing water in discharge horns which are left in the "UP" position.

The addition of nitrogen to CO2 bottles assures the user of sufficient pressures when the bottles are stored in temperatures below minus 35° F.

Carbon Tetrachloride Extinguishers

Carbon tetrachloride extinguishers can be used down to minus 40° F, though they get pretty slushy at that temperature and are unreliable. They will function then only if a good grade of fluid is used. A construction company in Anchorage used a commercial grade of carbon tet in their hand extinguishers, and they froze up solid, bursting the container wide open at minus thirty degrees.

Other Types of Extinguishers

The soda-acid type extinguisher needs an anti-freeze added to it (Calcium chloride) in order to reach the low limit of minus 35° F.

There is no help for Foamite below plus 32° F.

Carburetor Ice

The question arises as to why there seems to be an increase in carburetor icing difficulties these days.

Part 3 of the CARs requires that "Airplanes equipped with sea level engines employing conventional carburetors shall be provided with a pre-heater capable of a heat rise of 90° F.,

when the engine is operating at 75% of its maximum continuous power."

Now it has occurred to me that there is a relationship between the number of airplanes having carburetor icing difficulties and the number of airplanes having large horsepower surpluses under cruising conditions.

Where the jalopies of not long ago used to fly close to 75% of their available power, the new jobs, particularly the twin engine varieties, are being operated in many cases at less than 50% power.

In talking over techniques with a number of people, I find they do not boost their power output when encountering icing conditions. In some cases, as they fly along, the conditions become worse for lack of carburetor heat even though the heat control is "full on". In other cases the heat is applied too late, which is another matter.

Power is necessary to provide carburetor heat, and a correct mixture is necessary to provide power. Some installations provide so much excess heat, that increasing the power, and, particularly, leaning the mixture may lead to severe detonation. These installations are not under discussion, unless the icing is so bad heat can not otherwise be obtained.

It is necessary to lean out the mixture if the engine loses most of its power because of an excessively rich mixture. Venturi ice makes the mixture richer, and by-passing air through the heater muff reduces the ram effect, adding to the richness of the mixture. If the engine gulps with excess fuel and smokes like a jet when carburetor heat is applied, that is a good time to lean back the mixture.

Back To The O X-5 Days

As a last resort, try going back to the technique of old, when our engines had no carburetor heat. Close the throttle, and wait for the conducted heat to reach the carburetor and melt the ice off the walls. This may take about thirty seconds, and requires altitude in a single engine airplane. I have talked with pilots recently who have successfully used this "old fashioned" technique in both modern single and twin engine airplanes, when they could not develop enough power to deice the carburetor.

It Isn't Always Carburetor Ice

A few years ago I was forced to land an L-5 in the trees at Fort Yu

kon, because of a wrong diagnosis. The engine ran rich on the ground, but the application of carburetor heat leaned it out properly in a few seconds. Diagnosis: Carburetor ice.

Actual cause was a split carburetor float. It had split at the bottom, so that gasoline was sucked into or was pushed out from the float with changes in air pressure.

Carburetor Heat Worked

For the past several days the engine seemed to have 'iced up easily,' particularly during partial throttle operations while coming in for a landing. The increasing atmospheric pressure during descent would force gasoline into the float. This would cause the engine to run too rich. When carburetor heat was applied, this warmed the air in the carburetor float, which then expanded and expelled the gasoline bringing operations back to normal.

At Fort Yukon, I took off at 20° below zero, with the heat in cold position, after having "cleared it up" with heat. I made a 180° turn beyond the end of the runway because of a sloping cloud condition and back in a direction where it was CAVU at the other end of the airport.

That did it. The engine quit cold. The combination of cold air and the centrifugal force of the turn sank the float, and the mixture became so rich the engine just stopped firing.

Carburetor Heat Did Not Work

This time the heat control had no effect. My guess was fuel starvation, so I switched tanks. This of course did no good either, and then there was no more time for further experiment. Thus ended the lesson.

I have had leaking floats develop during flight on two other occasions, and both times, recognizing the symptoms, was able to continue flight with normal power by shutting the gas off and on until finding an in-between setting which properly metered the gas flow. A correct diagnosis even at the moment of complete power failure could still have saved the airplane.

Just before Thanksgiving, a teacher asked her pupils to make a list of things for which they were thankful, and to tell why they were thankful for them. One little boy wrote: "I am thankful that I have to wear glasses. They keep the big boys from fighting me, and they keep the little girls from kissing me.

HAVRE HANGAR HOLDS BENEFIT FLIGHTS

The Havre Hangar of the Montana Pilots Association had the pleasure of making a contribution of \$210 to the Lutheran Home of the Good Shepherd Fund. The Hangar accomplished this by holding Benefit Flights on Sunday, November 15. The planes and services of the pilots were donated for the "Penny a Pound" rides and the pilots for the event were: Walt Hensley, Dennis Hensley, Sharel Hensley Bitz, Delbert and Gerald Schnitzmeier, Harold Ebaugh, Al Ledbetter, Henry Wood, Lloyd Vande Sandt, Terry Anderson, Gordon Sands, Glenn Humphrey, Charles Inman and Ray Vogel.



Lt. to Rt. Dan Heltne, Havre area co-chairman of the fund drive, accepts the check from Ray Vogel, Benefit Flights Chairman and John Paugh, President of the Havre Hangar.

Planes were furnished by: Hensley Flying Service, Hill County Electric Co-op, the Schnitzmeiers, Wood, Vande Sandt, Anderson, Sands, Humphrey, Inman and Vogel.

The participants and on-lookers were thrilled with the precision parachute jumps made by Cecil Dykstra and Dennis Reel of Havre and Stan Bain of Kalispell. Wives of the pilots served hot lunches throughout the afternoon.

Congratulations for this worthwhile project goes to Ray Vogel, Chairman of the event and all participants.

FOR SALE: Cessna 120—Fiberglass wings, 48 HSTO, Narco Superhomer with Omni. Good glass, tires and nice interior. **PRICE:** \$2,350.00. **CONTACT:** Dr. J. L. Cromwell, P.O. Box 420—Livingston, Montana.

What the kids really want for Christmas is something that separates the men from the toys.

CONGRATULATIONS



CERTIFICATES ISSUED RECENTLY TO MONTANA FLYERS

Bassett, Wm. R. GGW AFB, Winnfield, La.—Student
Nohr, Paul D. GGW AFB, Cincinnati, Ohio—Student
Blick, Dorothy G., Glasgow—Mel on Private
Hall, Walter Russell, Laurel—Private
Jenison, Donald E., Billings—Private
Forbes, Clarence R., Billings—Private
Elliott, Bonnie J. (Winnipeg, Canada)—Private
Miller, Robert A., Hardin—Student
Swenson, Oscar A., Sidney—MEL on Private
Hardy, Alfred E., Plentywood—MEL Instr. on Flt. Instr. & Comm.
Clark, Melvin D., Basin, Wyo.—Flt. Instr.
Pomeroy, Lyndon F., Billings—Commercial
Oglesby, Garry J., Peerless—Student
Soare, Duncan B., Glendive—Student
Engstrom, Robert P., Plentywood—Student
Ritter, Arthur, Medicine Lake—Student
Johnston, Tyndall M., Billings—Student
Craig, Dorothy F., Billings—Student
Yager, Richard A., Billings—Student
Erlenbusch, LaVern L., Miles City—Student
Keilman, Gail J., Miles City—Instr. on Flt. Instr.
Howard, Robert C., Albany, Ga.—Mil. Comp. MEL on Comm.
Smith, Lyle F., Lewistown—Private
Walikonis, James L.—Student
DeTienne, Harold C., Bainville—Student
Bersuch, James E., Lewistown—Student
Duggan, George L., Minneapolis—Instr. on Comm.

Rice, Howard R., Harlowton—Student
 Butler, Jules F., Ennis—Comm.
 Teske, Eugene E., Billings—Student
 Haaven, Henry T., Dagmar—Private
 Kinkade, Orville A., Great Falls—Flight Instr.
 Luterbach, Donald H., Kalispell—Student
 Morgan, James M., Billings—Student
 Lorenzini, James W. GGW AFB Comm. (Mil. Comp.)
 Wandler, Edward A., Billings—Student
 Bokma, Cornelius E., Columbus—Student
 Arthaud, Joseph F., Billings—Student
 Martin, Gary John, Malta—Private
 Olney, Donald E., Glendive—Student
 MacManus, John S., Jr., San Diego—Student
 Little, Francis R., Great Falls—Student
 Little, Linnea E., Great Falls—Student
 Korkalo, Roy E., Missoula—Sr. Parachute Rigger
 Blaine, James E., Rathdrum, Ida.—Sr. Parachute Rigger
 Leavitt, Glen D., Missoula—Student
 Moore, Patsy L., Missoula—Student
 Demin, Robert W., Huson—Student
 Dryden, Dorothy A., Missoula—Student
 Sandon, Herbert W. Kalispell—Private
 Marshall, John W., Missoula—Private
 Ribi, Karen S., Hamilton—Private
 Matzke, Ralph D., Minn.—Student
 Teets, Vernon P., Malmstrom AFB—Student
 Weaver, Roland W., Great Falls—Student
 Bakke, Keith E., Helena—Student
 Hebbelman, John H., Chinook—Private
 Howe, John W., Ontario, Canada—Com. & Instrument
 Melvin, Russell C., Great Falls—Private
 Wermager, Larry Arden, Minn.—Instr. added to Com.
 Mangis, Edward V., Malta—Student
 Hill, Jon K., Washington—Student
 Jackson, Leroy G., Bozeman—Student
 Evers, Wm. A., Bozeman—Student
 Ledgerwood, Glenn B., Fort

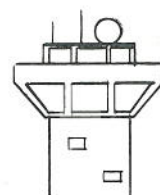
Benton—Student
 Raggio, Robert F., Bozeman—Student
 Beam, Jack E., Glasgow AFB—Student
 Schweitzer, Kenneth L., Bozeman—Student
 Logan, Steve, Dillon—Student
 Smith, Terence M., Kalispell—Student
 Williamson, Martin E. Lloyd—Student
 Fairhurst, Thomas E., Three Forks—Private
 Giles, Thomas W., Missoula—Private
 McCartney, Lance O., Great Falls—Student
 Olson, Clair W., Livingston—Student
 Biggerstaff, Michael R., Denton—Student
 Kelly, Charles A., California—Student
 Kidd, Wm. L., Great Falls—Student
 Turner, Wayne C., Great Falls—Private
 Holt, Lawrence M., Missoula—Private
 Mulford, John L., Lakeside—Student
 Patrick, Earl D., Eureka—Student
 Simpson, Robert C., Malta—Student
 Ashburn, Leonard Thacker, Jr., Great Falls—Com AMEL (Boeing 377—Instrument)
 Krawiec, Theodore J., Malmstrom AFB—Roto/Heli-Sikorsky S-61 added to Com. & Instr.
 Cislo, Stephen A., Kalispell—Student
 Schmidt, Wilbert A., Great Falls—Student
 Overcast, David A., Missoula—Student
 Holton, Robert E., Butte—Student
 Curran, Wm. Francis, Missoula—AMEL added to Private
 Rothwell, Ella B., Great Falls—Private
 Peterson, Kenneth C., Missoula—Student
 Shelton, Dale L., Great Falls—Student
 Schierding, Wilfred N., Superior—Student
 Sullivan, Stephen R., Stevensville—Student
 Soderlind, Ellwood V., Helena—Student
 Watson, Bernard M., Hawaii—Student
 Ross, Jerry, Bozeman—Student
 Wiederrick, Daniel F., Regina—Student

Willingham, Eddie W., Cut Bank—Student
 Coombs, Donald G., Great Falls—Private
 McGriff, Charles P., Cut Bank Student
 Fleming, Mary E., Livingston—Student
 Reams, George A., Cut Bank—Student
 Mannen, Patrick D., Helena—Airframe Mechanic

BILLING'S MOTEL OFFERS SPECIAL SERVICE TO FLYING VISITORS

The Rimrock Lodge has a special welcome awaiting whenever you fly into Billings, Montana. A ready and willing airport limousine will deliver you to the Rimrock Lodge motor hotel with little delay and back to the field upon your request.

This service is free of charge and at a moments notice. Call them on the direct line from the airport. The Rimrock Lodge personnel hope you will fly in often and enjoy their services.



TOWER

OPERATIONS

MONTANA TOWER CONTROLLED AIRPORT OPERATIONS

October, 1964

	Total Operations	Instrument Operations
Billings	8,253	595
Great Falls	7,740	624
Missoula	6,117	359
Helena	3,663	72

When his engine conked out, the pilot of a light plane glided to a landing on the Thruway. The pilot jumped out and walked back to the only car in sight, which had pulled off the road out of his way, to ask for a lift to the closest interchange. As he neared the car, the woman sitting beside the driver stuck her head out the window and said excitedly, "We'll get out of the way, mister, if you'll just show us where to go. This clown here is the only driver in the country who could start out on the thruway and wind up in the middle of an airport!"

SAFETY ALERT U.S. GENERAL AVIATION CARBON MONOXIDE

An important item in the winterizing of aircraft should be a thorough inspection of the exhaust cabin heater components for possible leaks. Carbon monoxide gas from such leaks could enter the cabin and result in pilot incapacitation.

REMEMBER

When carbon monoxide gas enters the cabin, there is no warning. It is **colorless, odorless, and tasteless.**

Now, said the judge to the prisoner, "If you wish, you may challenge any member of the jury." "Well, I'm not exactly in the pink of condition," replied the prisoner, "but I think I can lick the little fellow at the end of the front row."

LETTERS TO THE DIRECTOR

Dear Mr. Lynch:

Following is a letter I sent in to Flying Magazine. I felt this would be of interest to you.

"Have been reading with interest the comments by pilots relative to Sunday and holiday Customs charges

at various fields throughout the country. (September, Flying Mail).

The Montana Aeronautics Commission and the Customs and Immigration people in Sweet Grass (on the Montana /Alberta border) have taken a big step to alleviate this problem. In cooperation with the Department of Transport of Alberta and Canadian Customs, a 3,000 foot strip was built right on the border for the purpose of accommodating persons clearing in and out of Canada.

Any aircraft landing on this strip during the daylight hours, seven days a week, will be cleared free of charge into or from the U.S. by either U.S. or Canadian Customs. In addition, if the clearing aircraft will call Sweet Grass Unicom 122.8 informing Customs of their status (coming from or going into Canada), an official will meet the aircraft and clear it with a minimum of delay—and no charge!

Eighty and 10 octane fuel are available, as are tie-down facilities, motel and restaurant (no maintenance or hangar, however). The runway is E/W just west of the town of Sweet Grass, approximately 50 yards north of the wind sock and segmented circle."

Signed. William L. Fyfe
Sweet Grass, Montana

NATIONAL AIR TAXI SERVICES AND FARES ADDED TO TRAVEL PLANNER



The National Air Taxi Conference and its nearly 200 members are alerting travel agencies, business transportation departments and airline reservations offices to the inclusion of National Air Taxi Services and fares in the Winter 1964 OAG Travel Planner. These and other revolutionary changes have been made possible through cooperation with the publishers of the Official Airline Guide.

Conference members are listed alphabetically by state and city locations, with complete operating address and reference information. The Off-Line City Directory of the Travel Planner features for the first time a consolidated listing of National Air Taxi Services and fares to and from cities not served directly by the scheduled airlines. Three-letter carrier codes have been assigned each member and are indicated accordingly at points served.

Of importance is that the Planner is revised and issued on a quarterly basis (spring, summer, fall and winter), which allows Air Taxi information to be kept current.

Those who plan and book air travel will find the Travel Planner an extremely useful and necessary sales tool. A steady increase in Air Taxi is expected to follow (1) as a direct result of this listing which allows agents to quote services and fares quickly and with confidence; and (2) as a result of speeding up Air Taxi cooperative sales and promotion programs such as spearheaded by United Air Lines.

Recalling H. L. Mencken's remark when asked what motivates reformers, he replied: "The haunting fear that someone, somewhere, may be happy."

The quickest way to kindle a fire is to rub two opposing opinions together.



Ross International Airport—Coutts-Sweetgrass (looking east)



FEDERAL AVIATION AGENCY ITINERARY LISTING

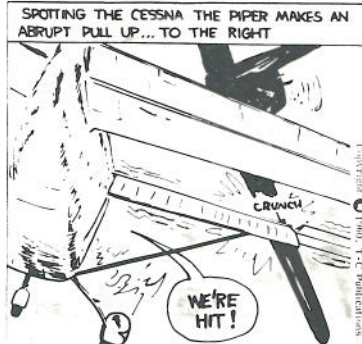
Airport	Dec.
Bozeman	10
(Gallatin Field)	
Culbertson	2
Glendive	16
Great Falls	3
(International Airport)	
Missoula	17

NOTE: Provisions have been made to give private pilot written examinations on an appointment basis only at the following FAA Flight Service Stations:

Bozeman	Lewistown
Butte	Livingston
Cut Bank	Miles City
Dillon	Missoula

Breathing through the nose is nature's first-aid to safety. It keeps the mouth shut.

In Africa, native tribes beat the ground with clubs and utter blood-curdling yells. Anthropologists call this "primitive self-expression." Here, we call it golf.



MEMBER NATIONAL ASSOCIATION OF STATE AVIATION OFFICIALS

PURPOSE:—"To foster aviation as an industry, as a mode of transportation for persons and property and as an arm of the national defense; to join with the Federal Government and other groups in **research, development, and advancement of aviation**; to develop uniform laws and regulations; and to otherwise encourage co-operation and mutual aid among the several states."

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DECEMBER





Volume 16, No. 1

January, 1965

— "Good Flying in 1965" —

SEVERSON AIR ACTIVITIES BEGINS HI LINE TRIANGLE AIR SERVICE

Wednesday, December 16, the twice-a-day air service from Great Falls to Cut Bank and Shelby commenced. This inaugural flight by Severson Air Activities of Great Falls, was the end of the period when the two Hi-Line cities were without air service and saw the beginning of daily trips, including Sundays, when it is possible for businessmen and other persons to commute either way, leaving in the morning and returning the same night.

The daily trips, accommodating passengers and freight, will leave Great Falls at 6:30 a.m. for the 40-minute flight to Cut Bank with a stop in Shelby before returning to Great Falls at 8:30 a.m. Afternoon flights will leave Great Falls about 4:30 p.m. and return at 8:30 p.m. The flights will connect with both Western Airlines' morning service to Denver and Los Angeles and the Northwest Airlines' morning service, east and west.

Pilots for the service will be three



Severson's new service receiving final checkout—Shown with the Cessna 320 are: Lt. to rt.: Dick Hickox, Chief Pilot; Lee Mills, FAA's Supervising Inspector, Helena; Arthur Kurth, FAA Flight Standards and Operations Inspector, Helena; Chet Severson, President of Severson Air Activities; Gene Poncelet, Pilot and Bob Lohof, Pilot. (Tribune Photo.)

highly qualified men who are well acquainted with the area and Montana flying conditions; Severson's Chief Pilot Dick Hickox, Robert "Bob"

Lohof and Gene Poncelet. Aircraft used will be a Cessna 320 Twin Engine which has equipment similar to that of the large airline aircraft